

## CLAIMS

What is claimed is:

1. An adapter for electrically and mechanically connecting a battery pack with an electrical apparatus, the battery pack and the electrical apparatus being otherwise incompatible, the adapter comprising:
  - a first portion for releasable attachment to the electrical apparatus; and
  - a second portion for physically receiving at least a portion of the battery pack;whereby the adapter completes an electrical circuit between the battery pack and the electrical apparatus.

2. The adapter for electrically connecting a battery pack with an electrical apparatus of Claim 1, wherein the electrical apparatus is a cordless power tool.

3. The adapter for electrically connecting a battery pack with an electrical apparatus of Claim 1, wherein the electrical apparatus is a charger.

4. The adapter for electrically connecting a battery pack with an electrical apparatus of Claim 1, wherein the cordless power tool includes a motor and working member.

5. The adapter for electrically connecting a battery pack with an electrical apparatus of Claim 1, wherein the adapter includes a pair of rails for slidably engaging the electrical apparatus and defines an aperture for receiving a nose portion of the battery pack.

6. The adapter for electrically connecting a battery pack with an electrical apparatus of Claim 1, wherein the adapter includes a nose portion for receipt into an aperture of the electrical apparatus and defines an aperture for receiving a nose portion of the battery pack.

7. The adapter for electrically connecting a battery pack with an electrical apparatus of Claim 6, wherein the aperture defined by the adapter extends in a direction generally parallel to the nose portion of the adapter.

8. A cordless power tool assembly comprising:
  - a tool housing;
  - a motor in the housing for driving a working member;
  - a battery pack for providing power to the motor; and
  - an adapter for electrically connecting the battery pack and the motor, the adapter releasably attached to the tool housing and physically receiving at least a portion of the battery pack.

9. The adapter for electrically connecting a battery pack with an electrical apparatus of Claim 8, wherein the adapter includes a pair of rails slidably engaging the electrical apparatus and defines an aperture receiving a nose portion of the battery pack.

10. The adapter for electrically connecting a battery pack with an electrical apparatus of Claim 8, wherein the adapter includes a nose portion receiving an aperture of the electrical apparatus and defines an aperture receiving a nose portion of the battery pack.

11. The adapter for electrically connecting a battery pack with an electrical apparatus of Claim 10, wherein the aperture defined by the adapter extends in a direction generally parallel to the nose portion of the adapter.

12. A method of adapting an electrical apparatus for use with a battery pack which is not directly attachable to the electrical apparatus, the method comprising the steps of:

providing an adapter for electrically connecting the battery pack to the electrical apparatus;

releasably attaching the adapter to the housing of the electrical apparatus;  
and

physically receiving at least a portion of the battery pack by the adapter so as to establish an electrical circuit between the electrical apparatus and the battery pack.

13. A method of adapting an electrical apparatus for use with a battery pack which is not directly attachable to the electrical apparatus of Claim 12, wherein the electrical apparatus is a cordless power tool.

14. A method of adapting an electrical apparatus for use with a battery pack which is not directly attachable to the electrical apparatus of Claim 12, wherein the electrical apparatus is a charger.

15. A method of adapting an electrical apparatus for use with a battery pack which is not directly attachable to the electrical apparatus of Claim 12, wherein the step of releasably attaching the adapter to the housing includes the steps of providing the adapter with a pair of rails and slidably engaging the rails with the housing.

16. A method of adapting an electrical apparatus for use with a battery pack which is not directly attachable to the electrical apparatus of Claim 12, wherein the step of releasably attaching the adapter to the housing includes the steps of providing the adapter with a nose portion and inserting the nose portion into an aperture defined by the housing.

17. A method of adapting an electrical apparatus for use with a battery pack which is not directly attachable to the electrical apparatus of Claim 12, wherein the step of

physically receiving at least a portion of the battery pack by the adapter so as to establish an electrical circuit between the electrical apparatus and the battery pack includes the steps of providing the battery pack with a pair of rails and slidably engaging the rails with the adapter.

18. A method of adapting an electrical apparatus for use with a battery pack which is not directly attachable to the electrical apparatus of Claim 12, wherein the step of physically receiving at least a portion of the battery pack by the adapter so as to establish an electrical circuit between the electrical apparatus and the battery pack includes the steps of providing the battery pack with a nose portion and inserting the nose portion into an aperture defined by the adapter.



19. A method of converting a tool user from a first system of cordless power tools to a second system of cordless power tools, the first system of cordless power tools including a first power tool housing, a first battery dedicated for use with the first power tool housing, the second system of cordless power tools including a second power tool housing and a second battery dedicated for use with the second power tool housing, the method compressing the steps of:

providing an adapter for electrically and physically coupling the first battery and the second tool housing.